



**US ENVIRONMENTAL PROTECTION AGENCY**  
**Region 1 New England - OEME**  
**11 Technology Drive, North Chelmsford, MA 01863**

**Inspection Report**

Drafted Date: September 30, 2015

Finalized Date: November 21, 2015

**Subject:** Crosswinds Dairy - Inspection Report

**From:** Lisa Thuot (OEME) – USEPA Compliance Inspector

**To:** File

**I. Facility Information:**

- A. *Facility Name/Location:* Crosswinds Dairy  
98 Martell Rd.  
Alburgh, VT 05440
- B. *Facility Contact(s):* Newton and Darlene Reynolds - Owners
- C. *Mailing Address:* 98 Martell Rd.  
Alburgh, VT 05440

**II. Inspection Information:**

- A. *Date and time of inspection:*  
*Facility entrance:* May 20, 2015, 1230  
*Facility exit:* May 20, 2015, 1430
- B. *Weather Conditions:* Partly cloudy, 58° F. Rain [0.01 in.] on 5/19/15.
- C. *US EPA Representative(s):* Lisa Thuot, EPA Region 1  
Andrew Spejewski, EPA Region 1
- D. *State Representative(s):* Abbi Pajak, VT Agency of Agriculture
- E. *Federal Requirements Covered During Inspection:* 40 CFR Part 122.23

**III. Type and Purpose of Inspection:**

The purpose of the inspection was to assess applicability of the Concentrated Animal Feeding Operation requirements under the Clean Water Act at 40 C.F.R. Part 122.23.

#### **IV. Inspection Information**

##### Entry Procedures:

The inspection was announced in advance by telephone voicemail message to the owners, Newton and Darlene Reynolds; I explained the purpose of the visit and which areas of the farm we planned to inspect. Upon arrival, we [EPA inspectors] presented our inspector credentials to the Reynolds'. Prior to touring the farm, we disinfected my boots in accordance with EPA Biosecurity procedures.

##### Facility Information:

- Crosswinds Dairy ("the farm") is a dairy operation with 685 mature dairy cows at their Martell Road location. They also have 170 heifers at their Howard Farm on 88 Blair Road in Alburgh. There are 8 employees working at the farm.
- Crop acreage for land application includes 1100 owned acres and 750 rented acres. Land application is done by farm employees. Some manure is exported off-site.
- Animal mortalities are taken off-site to a rendering facility.
- Sand is used for animal bedding. The Reynolds' said they typically excavate sand from the manure pit once per year.
- There are 3 barns for milking cows (the Milking Barn, Tie Barn, and New Barn), a Dry Cow Barn, and the T Barn (for heifers). The New Barn was built in 2014.
- The nearest water of the U.S. is Mud Creek pond, located approximately 0.4 miles west of the farm production area. Mud Creek pond is connected to Mud Creek, which discharges to Lake Champlain to the south. A small wetland stream (riverine) associated with Mud Creek pond flows from east to west through the farm production area.

##### Facility/Farm Tour:

- Silage is stored in an area called the "Main Stack" on a concrete and wolsonite pad. Two years ago, a temporary concrete barrier berm was added between the Main Stack and an adjacent drainage ditch (photo #1). The drainage ditch flows into the wetlands stream. The berm was added per the request of the Agency of Agriculture. The owners plan to install a silage leachate collection system to direct runoff from the silage pad into a manure pit. Silage is no longer stored at the Howard heifer facility.
- The area between the T-Barn and the Milking Barn has a concrete surface which drains to a new collection tank (added in 2014) that is surrounded by a concrete berm and slab (photo #2). The tank has a pump to transfer contents to the big manure pit located south of the milking barn. Mr. Reynolds said the tank pump must be manually activated; he said they plan to add a float in the future to automatically activate the pump. We observed cracks in the concrete surface around the tank and water was leaking/seeping under the concrete slab onto the ground, which runs downslope to the wetland stream (photo #3). We could not visually determine if the water was leaking from the collection tank or from groundwater seepage.
- There is an animal walkway between the New Barn and the Milking Barn which has a storm drain to collect barn roof runoff. The storm drain in the walkway is connected to a pipe that discharges to the wetland stream flowing through the farm's production area. In 2014, a roof was placed over the [previously uncovered] walkway, and low curbing (less than 6" in height) was installed on the walkway. During the inspection, we observed

evidence that some manure waste was overtopping the curb into the storm drain area (photo #4). We recommended that residual manure on the walkway be cleaned up frequently to avoid overtopping the curb. We also recommended closing/sealing off the storm drain to prevent manure discharges.

- The New Barn and T-Barn barns are manually scraped of manure by skid steer into the farm's 2<sup>nd</sup> manure pit or pumped to the main pit. The volume of the 2<sup>nd</sup> manure pit was nearing capacity (photo #5). Manure was being stacked outside of the main pit (photo #6). Mr. Reynolds said they planned to consolidate the 2<sup>nd</sup> pit and main pit into one larger, expanded pit. Mr. Reynolds said this expansion work required a variance, which was denied by the VT Agency of Agriculture earlier in the week.
- There is a heavy use area with a concrete surface outside the dry cow barn, which is used for exercise and transport of cows. There is no dry cow grazing area nearby. We observed a pile of waste sand solids sitting next to the dry cow barn. Mr. Reynolds said these solids had been excavated from 2 manure pits, and were awaiting pick-up by a local contractor who mixes the solids into topsoil.

#### Records Review:

- The farm has a nutrient management plan (NMP) developed through the University of Vermont Extension. At the time of inspection, the NMP was off-site because it was being updated with Heather Darby at the UVM Extension. Abbi Pajak said she would review the NMP during a future inspection.

#### **V. Exit Briefing**

An exit briefing was conducted by EPA inspectors and Abbi Pajak with the Reynolds' to discuss the following:

- The owners need to manage the silage area to ensure no discharges occur to the nearby drainage ditch and wetland stream.
- The water leak/seepage under the concrete slab at the collection tank (for runoff between the T-Barn and Milking Barn) needs to be investigated to determine the source and a fix, because it flows into the wetland stream.
- Manure was overtopping the curbing on the animal walkway between the New Barn and the Milking Barn, which can result in a manure discharge into the storm drain. We recommended the walkway be scraped of manure frequently to avoid overtopping the curb, and the storm drain be sealed off if the walkway remains covered.
- The volume in the 2<sup>nd</sup> manure pit was nearing capacity. The owners plan to land apply manure from this pit.

End of Report

#### **Enclosures/Attachments:**

Inspection photos

Aerial photo map